# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/501,922 | 07/28/2004 | Harald Karl Gretsch | W1.1941PCT-US | 7495 |

| | | | EXAMINER |
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| 7590 | 06/08/2006 | | DONDERO, WILLIAM E |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 3654 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/501,922 | GRETSCH ET AL. |
| | **Examiner** | **Art Unit** | |
| | William E. Dondero | 3654 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *33-39,41-67,69-93,100-105,124 and 125* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-39,41-67,69-93,100-105,124 and 125* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

# DETAILED ACTION

## *Claim Objections*

Claim 52 objected to because of the following informalities: it is dependent off of cancelled Claim 40. Appropriate correction is required. For the purposes of furthering prosecution, Claim 52 is assumed to be dependent off of Claim 33 in the Office Action below.

## *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-39, 41-67, 69-93, 100-105, and 124-125 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 recites the limitation "said actual existing reference value" in lines 19-20. There is insufficient antecedent basis for this limitation in the claim. All similar instances of "reference value" and "reference variable" should be corrected.

Claim 34 recites the limitation "said measured value" in line 21. There is insufficient antecedent basis for this limitation in the claim. Further regarding Claim 34, lines 19-22 are indefinite because it is unclear how the "selected reference value" is returned to the "actual existing reference variable" using the "measured value".

Claim 44 recites the limitation "said computing unit" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 125 is rendered indefinite because it is unclear as to whether the

"reference variable" is different from the "existing reference variable" and which is being

changed.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33, 35-36, 38, 42-43, 45-46, 48-49, 51-52, 54-56, 58-59, 61-62, 64-65,

67, 69-70, 72-73, 75-76, 78-79, 81-82, 84, 88, 90, 100, 102, and 124-125 rejected under

35 U.S.C. 102(b) as being anticipated by Lewis et al. (US-3510036). Regarding Claim

33, Lewis et al. disclose a method for regulating a tension of a web of material passing

through a processing machine including providing a regulating device 80; using said

web tension regulating device for controlling the web tension; maintaining said web

tension at an actual, existing reference variable using said web tension regulating

device; sensing the occurrence of a web tension affecting interference during

processing of the web in the processing machine; providing a selected reference value

for the web tension in response to the interference; providing a time based,

predetermined function in response to the sensed web tension affecting interference;

providing a computing unit 92; supplying information regarding the web to the

computing unit; using the computing unit for providing the time based predetermined

function; supplying said predetermined function to the regulating device; using the

regulating device for selectively reducing the actual reference variable at least

temporarily below the selected reference variable and subsequently returning the actual

reference variable to the actual existing reference value (Figure 1; Column 2, Lines 30-

33 and Lines 39-51; Column 10, Lines 14-17 and Lines 29-30).

Regarding Claim 35, Lewis et al. disclose a method for regulating a tension of a

web of material passing through a processing machine including providing a reference

variable of a tension of the web of material; sensing the occurrence of a web tension

affecting interference during processing of the web in the processing machine; providing

a time based, predetermined function in response to the sensed web tension affecting

interference; providing a computing unit 92; supplying information regarding the web to

the computing unit; using the computing unit for determining one of a time and a

duration of a reduction of the reference variable of the tension; and selectively changing

and reducing the reference variable of the tension on the basis of the time based

function (Figure 1; Column 2, Lines 30-33 and Lines 39-51; Column 10, Lines 14-17 and

Lines 29-30).

Regarding Claims 36, 79, and 81, Lewis et al. disclose reducing the selected

reference variable to a fixed value (Column 10, Lines 14-17).

Regarding Claim 38, Lewis et al. disclose reducing the selected reference

variable a predetermined amount in respect to the actually existing reference variable

(Column 2, Lines 30-33 and Lines 39-51; Column 10, Lines 14-17 and Lines 29-30).

Regarding Claims 42, 43, and 45, Lewis et al. disclose providing a memory unit

92 and using the memory unit for storing at least one value of an amount of change of

the reference variable and at least one correlation for determining a change of the reference variable. Lewis et al. disclose computer circuitry 92 which stores the current, high, and low tension values which are related through a correlation to give the amount of change from the current to the low value (Figure 2).

Regarding Claims 46 and 48, Lewis et al. disclose maintaining the reference value as the selected reference variable for a constant time interval until the delay circuit times out (Column 10, Lines 29-30).

Regarding Claims 49 and 51, Lewis et al. disclose reducing the reference variable in one step from the current value to the low value.

Regarding Claims 52, 54, 100, and 102, Lewis et al. disclose reducing the reference variable discontinuously in the time interval with a discontinuity jump from the current value to the low value.

Regarding Claim 55, Lewis et al. disclose providing a regulating device 80 and using the regulating device for maintaining the web tension as the reference variable (Figure 2).

Regarding Claims 56, 58, 59, 61, 62, 64, 73, 75, 76, and 78 Lewis et al. disclose changing the reference variable during the interference, a roll change by connecting an old web and a new web before a last clamping point (defined by rollers 26 and 28) located before the first printing unit (Figure 1; Column 2, Lines 30-33 and Lines 39-51; Column 10, Lines 14-17 and Lines 29-30).

Regarding Claim 65, Lewis et al. disclose selecting the predetermined amount of counteracting an expected change in the web tension.

Regarding Claims 67, 69, 70, and 72, Lewis et al. disclose providing a first

printing unit 26,28 in the processing machine and altering the reference variable of the

web tension before, in a transport direction of the web, the first printing unit at the web

draw-in unit as defined by rollers 18 and 20 (Figure 1).

Regarding Claims 82 and 84, Lewis et al. disclose returning the reference

variable to the actual existing reference variable after the time interval.

Regarding Claims 88 and 90, Lewis et al. disclose using a time function (defined

by a delay circuit) for returning the reference variable (Column 10, Lines 29-30).

Regarding Claim 124, Lewis et al. disclose a device for regulation of tension in a

web material passing through a processing machine comprising a regulating device 80

adapted to maintain tension in a web at a reference variable; means 86 for sensing an

actual existing reference variable of a tension in a web; means 272, 274, 280, 276, 252

for sensing the occurrence of a web tension varying interference in the web; a

computing unit 92 adapted to store information regarding the web as well as at least

one value of the web processing affecting the web; means for storing in the computing

unit at least one correlation for determining a change in the reference variable in

response to the sensing of the tension varying interference; and means for reducing

said actual existing reference variable to the reference variable to counteract the

interference by use of the computing unit to control the regulating device (Figure 1;

Column 2, Lines 30-33 and Lines 39-51; Column 10, Lines 14-17 and Lines 29-30).

Regarding Claim 125, Lewis et al. further disclose the reference variable is reduced by

a predetermined value with respect to the actually existing reference variable.

## *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 85, 87, 91, 93, 103, and 105 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Lewis et al. (US-3510036).  Regarding Claims 85 and 87,

Lewis et al. disclose a method for regulating a tension of a web of material passing

through a processing machine as discussed above in regards to Claims 79 and 81,

respectively.  Lewis et al. are silent about returning said reference variable to a new

constant reference variable from the actual existing reference variable after the time

interval.  It would have been obvious to one of ordinary skill in the art at the time the

invention was made to return the reference variable to a new constant reference

variable different from the actual existing reference variable after the time interval

because the new roll of paper may be of a different type with different properties or the

environment surrounding the machine may have changed causing the material

properties to change.

Regarding Claims 91 and 93, Lewis et al. disclose using a time function (defined

by a delay circuit) for returning the reference variable (Column 10, Lines 29-30).

Regarding Claims 103 and 105, Lewis et al. disclose reducing the reference

variable discontinuously in the time interval with a discontinuity jump from the current

value to the low value.

Claims 34, 37, 39, 41, 44, 47, 50, 53, 57, 60, 63, 66, 71, 74, 77, 80, 83, 86, 89,

92, 101, 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et

al. (US-3510036) in view of Siegl et al. (US-6106177). Regarding Claim 34, Lewis et al.

disclose a method for regulating a tension of a web of material passing through a

processing machine including providing a web tension regulating device 80; using said

web tension regulating device for controlling the web tension; maintaining said web

tension at an actual, existing reference variable using the web tension regulating device;

sensing the occurrence of a web tension affecting interference during processing of the

web in the processing machine; providing a selected reference value for the web

tension in response to the interference; using the regulating device for selectively

reducing the actual existing reference variable at least temporarily; measuring tensions

in the web continuously along the processing machine; and using the regulating device

for returning the selected reference value to the actual existing reference variable using

the measured value of the tension in the web (Figure 1; Column 2, Lines 30-33 and

Lines 39-51; Column 10, Lines 14-17 and Lines 29-30). Lewis et al. is silent about a

plurality of printing groups including a first printing group and a last printing group.

However, Siegl et al. disclose a plurality of printing groups in a processing machine

including a first printing group and a last printing group (Figure 2). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to add a

plurality of print groups to the processing machine of Lewis et al. and measure the

tension before the first printing group and after the last printing group to allow more

colors to be printed and make the machine more efficient as taught by Siegl et al.

Regarding Claims 37 and 80, Lewis et al. disclose reducing the selected reference

variable to a fixed value (Column 10, Lines 14-17). Regarding Claim 39, Lewis et al.

disclose reducing the selected reference variable a predetermined amount in respect to

the actually existing reference variable (Column 2, Lines 30-33 and Lines 39-51;

Column 10, Lines 14-17 and Lines 29-30). Regarding Claim 41 and 44, Lewis et al.

disclose providing a memory unit 92 and using the memory unit for storing at least one

value of an amount of change of the reference variable and at least one correlation for

determining a change of the reference variable. Lewis et al. disclose computer circuitry

92 which stores the current, high, and low tension values which are related through a

correlation to give the amount of change from the current to the low value (Figure 2).

Regarding Claims 47, Lewis et al. disclose maintaining the reference value as the

selected reference variable for a constant time interval until the delay circuit times out

(Column 10, Lines 29-30). Regarding Claims 50, Lewis et al. disclose reducing the

reference variable in one step from the current value to the low value. Regarding

Claims 53 and 101, Lewis et al. disclose reducing the reference variable discontinuously

in the time interval with a discontinuity jump from the current value to the low value.

Regarding Claims 57, 60, 63, 74, and 77, Lewis et al. disclose changing the reference

variable during the interference, a roll change by connecting an old web and a new web

before a last clamping point (defined by rollers 26 and 28) located before the first

printing unit (Figure 1; Column 2, Lines 30-33 and Lines 39-51; Column 10, Lines 14-17

and Lines 29-30). Regarding Claim 66, Lewis et al. disclose selecting the

predetermined amount of counteracting an expected change in the web tension.

Regarding Claims 71, Lewis et al. disclose providing a first printing unit 26,28 in the processing machine and altering the reference variable of the web tension before, in a transport direction of the web, the first printing unit at the web draw-in unit as defined by rollers 18 and 20 (Figure 1). Regarding Claims 83, Lewis et al. disclose returning the reference variable to the actual existing reference variable after the time interval. Regarding Claim 89, Lewis et al. disclose using a time function (defined by a delay circuit) for returning the reference variable (Column 10, Lines 29-30).

Regarding Claim 86, Lewis et al. in view of Siegl et al. disclose a method for regulating a tension of a web of material passing through a processing machine as discussed above in regards to Claim 80. Lewis et al. in view of Siegl et al. are silent about returning said reference variable to a new constant reference variable from the actual existing reference variable after the time interval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to return the reference variable to a new constant reference variable different from the actual existing reference variable after the time interval because the new roll of paper may be of a different type with different properties or the environment surrounding the machine may have changed causing the material properties to change. Regarding Claim 92, Lewis et al. disclose using a time function (defined by a delay circuit) for returning the reference variable (Column 10, Lines 29-30). Regarding Claim 104, Lewis et al. disclose reducing the reference variable discontinuously in the time interval with a discontinuity jump from the current value to the low value.

**Response to Arguments**

Applicant's arguments filed March 30, 2006 have been fully considered but they are not persuasive. Regarding Applicant's arguments starting on page 22, line 24 to page 24, line 18, Applicant argues Lewis et al. does not disclose a computing unit. However, Lewis et al. does discloses computer circuitry as discussed in the 35 USC 102(b) capable of storing, sending, receiving, and computing information from the regulating devices of the processing machine.

Applicant further argues the instant application does not merely automatically reduce the tension to a single lower level, which is not web characteristic related or dependent. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., tension change not being just a drop to a single value) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding Applicant's arguments starting on page 24, line 19 to page 25, line 5, Applicant argues Lewis et al. does not disclose a plurality of printing groups including a first printing group and a last printing group. Applicant's arguments with respect to this argument have been considered but are moot in view of the new ground(s) of rejection necessitated by the addition of the limitation, "providing a plurality of printing groups in said processing machine and including a first printing group and a last printing group in a direction of web travel through said plurality of printing groups" to lines 14-16 of Claim 34.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William E. Dondero whose telephone number is 571-272-5590. The examiner can normally be reached on Monday through Friday 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wed

**JOHN Q. NGUYEN**
**PRIMARY EXAMINER**